CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-12. (Canceled)

13. (Currently amended) A device for determining at least one of a position and an orientation of an eye, ~~in which a starting point or an end point of a light beam reflected by a part of the eye and detected by at least one of a detector system and a light beam projected by~~ comprising:

a projection system for projecting infrared light onto or into the eye ~~quasi two-dimensionally describes a movement pattern of at least one of a scanning movement and a projection movement in the eye when a direction of the light beam is changed with respect to time according to the scanning movement or the projection movement, comprising: a shifting device that causes a reference point of the movement pattern to follow into a pupillary or macula center, and~~ having a projection light guiding arrangement that deflects the projected light onto a specific part of the eye,

a detector system for detecting said light after it has been reflected by a part of the eye,

a determination device that ~~uses the movement pattern of the scanning movement or projection movement for determining the pupillary center or the~~

~~macula center~~ determines a position of at least one characteristic of the eye from the detected light, and

an orientation determining device for determining the position or orientation of the device relative to the environment,

wherein the device is wearable.

14-20. (Canceled)

21. (Previously presented) The device according to Claim 13, wherein the position and/or orientation of the eye with respect to its environment is determined in that the detector system detects the retinal structure of the eye as well as the environment reflex image superimposed thereon, detects the position of the fovea by way of the retina structure, and identifies the area of the environment sighted by the fovea by way of a pattern identification.

22. (Previously presented) The device according to Claim 13, wherein the relative position of at least one characteristic area of the retina with respect to the optical detector and/or projection system is determined, and wherein the deviations of determined position data of this characteristic area from previously stored position data of this characteristic area are used for the determination of the spatial position and/or orientation of the eye with respect to the optical detector and/or projection system.

23-26. (Canceled)

27. (Currently amended) A method for determining at least one of a position and an orientation of an eye, ~~in which a starting point or an end point of a light beam reflected by a part of the eye and detected by at least one of a detector system and a light beam projected by a projection system onto or into the eye quasi two-dimensionally describes a movement pattern of at least one of a scanning movement and a projection movement in the eye when a direction of the light beam is changed with respect to time according to the scanning movement or the projection movement,~~ comprising:

~~causing a reference point of the movement pattern to follow into a pupillary or macula center~~ projecting infrared light onto or into the eye, the projected light being deflected onto a specific part of the eye,

detecting said light after it has been reflected by said part of the eye,

determining a position of at least one characteristic of the eye from the detected light, and

determining the ~~pupillary center~~ position or ~~the macula center using the movement pattern of the scanning movement or projection movement~~ orientation of the device relative to the environment,

wherein the device is wearable.

28-32. (Canceled)

33. (New) The device according to claim 21, wherein an image identification is performed to identify an object within the area of the environment sighted by the fovea.

34. (New) The device according to claim 13, which uses the iris, the sclera, the cornea, and/or another structure of the eye instead of the retina or together with the retina.

35. (New) The device according to claim 13, wherein the at least one characteristic is at least one from the position of the pupillary center or the macula center.

36. (New) The device according to claim 13, wherein the projection light guiding arrangement is a holographic element which reflects light in an infrared range.

37. (New) The device according to claim 13, wherein the projection device projects the light into the eye in a frequency-modulated manner, and the determining device determines the distance between said part of the eye and the detector device and/or the device from the propagation time of the detected light.

38. (New) The device according to claim 13, wherein the projection device projects the light into the eye in a frequency-modulated manner, and the

determining device determines the three-dimensional position of the eye relative to the device from the frequency of the detected light.

39. (New) The device according to claim 13, wherein the projection device or a second projection device projects perceivable information into the eye such that it is correlated with the determined orientation of the eye.

40. (New) The method according to claim 27, which uses the iris, the sclera, the cornea and/or another structure of the eye instead of the retina or together with the retina.

41. (New) The method according to claim 27, wherein the at least one characteristic is at least one from the position of the pupillary center or the macula center.

42. (New) The method according to claim 27, wherein the light is deflected by a holographic element which reflects light in an infrared range.

43. (New) The method according to claim 27, wherein the light is projected into the eye in a frequency-modulated manner, and comprising determining the distance between said part of the eye and the detector device and/or the device from the propagation time of the detected light.

44. (New) The method according to claim 27, wherein the light is projected into the eye in a frequency-modulated manner, and comprising determining the three-dimensional position of the eye relative to the device from the frequency of the detected light.

45. (New) The method according to claim 27, comprising determining the position and/or orientation of the eye with respect to its environment by detecting the retinal structure of the eye as well as the environment reflex image superimposed thereon, detecting the position of the fovea by way of the retina structure, and identifying the area of the environment sighted by the fovea by way of a pattern identification.

46. (New) The method according to claim 45, comprising performing an image identification to identify an object within the area of the environment sighted by the fovea.

47. (New) The method according to claim 27, comprising determining the relative position of at least one characteristic area of the retina with respect to a detector system and/or projection system, determining the deviations of determined position data of this characteristic area from previously stored position data of this characteristic area, and determining of the spatial position and/or orientation of the eye with respect to the detector system and/or projection system from said determined deviations.

48. (New) The method according to claim 27, comprising projecting perceivable information into the eye such that it is correlated with the determined orientation of the eye.

49. (New) A device for determining the position and/or orientation of an eye, comprising:

a detector system for detecting at least one environment reflex image by detecting light from the environment which is incident on a part of the eye and at least partially reflected by said part of the eye,

a camera for capturing at least one environment image by photographing the environment,

wherein said camera is rigidly connected with the device,

a determination device, which identifies a significant structure in both the environmental reflex image and the environment image, by pattern identification and determines the orientation of the eye relative to the environment from the spatial assignment of the positions of said significant structure in the environmental reflex image and the environment image.

50. (New) The device according to claim 49, wherein said camera is arranged so as to be approximately confocal with respect to the eye.

51. (New) The device according to claim 49, wherein the deviations of the determined position data of said significant structure from previously stored

position data of this significant structure are used for the determination of the spatial position and/or orientation of the eye.

52. (New) The device according to claim 49, with a projection device which projects perceivable information into the eye such that it is correlated with the determined orientation of the eye.

53. (New) The device according to claim 49, comprising at least one of a laser triangulation arrangement, a radar, and a GPS receiver for determining the position or orientation of the device relative to the environment.